

5'	GTT	CGA	TGA	AAG	AAT	TGC	CGC	TTT	TCA	AAC	AAA	GAG	TGG	AAC	AGC	CTC	GGA	GAT	54
	63		72		81		90		99		108								531
GGG	AAC	AGA	GAG	GGC	GAT	GGG	GCT	GTC	AGA	AGA	ATG	GAC	TGT	GCA	CAG	CCA	AGA		540
	117		126		135		144		153		162								
GGC	CAC	CAC	TTC	GGC	TTG	GAG	CCC	TTC	CTT	TCT	TCC	TGC	TTT	GGA	GAT	GGG	AGA		
	171		180		189		198		207		216								
GCT	GAC	CAC	GCC	TTC	TAG	GAA	GAG	AAA	TTC	CTC	AGG	ACC	AGA	TCT	CTC	CTG	GCT		
	225		234		243		252		261		270								
GCA	TTC	CTA	CAG	GAC	AGC	AGC	TTC	CTC	TCC	TCT	CTT	AGA	CCT	TTC	CTC	ACC	TTC		
	279		288		297		306		315		324								
TGA	AAG	TAC	AGA	GAA	GCT	TAA	CAA	CTC	CAC	TGG	CCT	CCA	GAG	CTC	CTC	AGT	CAG		
	333		342		351		360		369		378								
TCA	AAC	AAA	GAC	AAT	GCA	TGT	TGC	TAC	CGT	GTT	CAC	TGA	TGG	CCC	GAG	AGC	AAC		
	387		396		405		414		423		432								
GCT	GCG	ATC	TTT	GAC	GGT	CAG	TCT	GGG	ACC	TGT	GAG	CAA	GAC	AGA	AGG	CTT	CCC		
	441		450		459		468		477		486								
CAA	GGG	CTC	CAG	AAT	TGC	CAC	GAC	TTG	ATC	CTC	AGT	CCT	TCT	TTC	ACC	CTC	TGC		
	495		504		513		522		531		540								
AGT	GGA	ATC	GAG	AAG	AAA	CAG	TAG	AGT	AAC	TGG	GAA	TCC	AGG	GGA	TGA	GGA	ATT		

FIGURE 1A

Figure 1B: 5' to 3' sequence

CAT	TGA	ACC	ATC	CAC	AGA	AAA	TGA	ATT	TGG	ACT	TAC	GTC	TTT	GCG	TGG	CAA	AAAT	
603	GAT	TCC	CCA	ACC	T <sup>TTT</sup>	GGA	GAA	CAT	CAG	CTT	GCC	AGC	AGC	TCT	GAG	GTG	CAA	AAAT
657	GGA	AGT	CCC	ATG	TCT	CAG	ACT	GAG	ACT	GTG	TCT	AGG	TCA	GTC	GCA	CCC	ATG	AGA
M	S	Q	T	E	T	V	S	R	S	V	A	P	M					
711	GGT	GGA	GAG	ATC	ACT	GCA	CAC	TGG	CTC	TTG	ACC	AAC	AGC	ACA	ACA	TCT	GCA	GAT
G	G	E	I	T	A	H	W	L	L	T	N	S	T	T	S	A	D	
765	GTG	ACA	GGA	AGC	TCT	GCT	TCA	TAT	CCT	GAA	GGT	GTG	AAT	GCT	TCA	GTG	TTG	ACC
V	T	G	S	S	A	S	Y	P	E	G	V	N	A	S	V	L	T	
819	CAG	TTC	TCA	GAC	TCT	ACT	GTA	CAG	TCT	GGA	GGA	AGT	CAC	ACA	GCA	TTG	GGA	GAT
Q	F	S	D	S	T	V	Q	S	G	G	S	H	T	A	L	G	D	
873	AGG	AGT	TAT	TCA	GAG	TCT	TCA	TCT	ACA	TCT	TCC	TCG	GAA	AGC	TTG	AAT	TCA	TCA
R	S	Y	S	E	S	S	S	T	S	S	E	S	S	L	N	S	S	

FIGURE 1B

Figure 1C: Amino acid sequence alignment of the human and mouse proteins.

Human Protein										Mouse Protein									
Human					Mouse					Human					Mouse				
Pos	A	P	R	G	E	R	S	I	A	G	I	S	Y	G	Q	V	R	G	
927	GCA	CCA	CGT	GGA	GAA	CGT	TCA	ATC	GCT	GGG	ATT	AGC	TAC	GGT	CAA	GTG	CGT	GGC	
981	ACA	GCT	ATT	GAA	CAA	AGG	ACT	TCC	AGC	GAC	CAC	ACA	GAC	CAC	ACC	TAC	CTG	TCA	
1035	TCT	ACT	TTC	ACC	AAA	GGA	GAA	CGG	GGG	TTA	CTG	TCC	ATT	ACA	GAT	AAC	AGT	TCA	
1089	TCC	TCA	GAC	ATT	GTG	GAG	AGC	TCA	ACT	TCT	TAT	TAT	AAA	ATC	TCA	AAC	TCT	TCA	
1143	CAT	TCA	GAG	TAT	TCC	TTT	TCT	CAT	GCT	CAG	ACT	GAG	AGA	AGT	AAC	ATC	ATC	TCA	
1197	TCC	TAT	GAC	GGG	GAA	TAT	GCT	CAG	CCT	TCT	ACT	GAG	TCG	CCA	GTT	CTG	CAT	ACA	
	S	Y	D	G	E	Y	A	Q	P	S	T	E	S	P	V	L	H	T	

FIGURE 1C

TCC	AAC	CTT	CCG	TCC	TAC	ACA	CCC	ACC	ATT	AAT	ATG	CCG	AAC	ACT	TCG	GTT	GTT
S	N	L	P	S	Y	T	P	T	I	N	M	P	N	T	S	V	V
L	D	T	D	A	E	F	V	S	D	S	S	S	S	S	S	S	S
TCC	TCT	TCT	TCT	TCA	GGG	CCT	CCT	TG	CCT	TCC	TCC	TCC	TCT	TCC	TCC	TCC	TCC
S	S	S	S	S	G	P	P	L	P	L	P	S	V	S	Q	S	S
CAC	CAT	TTA	TTT	TCA	TCA	ATT	TTA	CCA	TCA	ACC	AGG	GCC	TCT	GTG	CAT	CTA	CTA
H	H	L	F	S	S	I	L	P	S	T	R	A	S	V	H	L	L
AAG	TCT	ACC	TCT	GAT	GCA	TCC	ACA	CCA	TGG	TCT	TCC	TCA	CCA	TCA	CCT	TTA	CCA
K	S	T	S	D	A	S	T	P	W	S	S	S	P	S	P	L	P
GTA	TCC	TTA	ACG	ACA	TCT	ACA	TCT	GCC	CCA	CTT	TCT	GTC	TCA	CAA	ACA	ACC	TTG
V	S	L	T	T	S	T	S	A	P	L	S	V	S	Q	T	T	L

FIGURE 1D

CCA	CAG	TCA	TCT	TCT	ACC	CCT	GTC	CTG	CCC	AGG	GCA	AGG	GAG	ACT	CCT	GTG	ACT	
P	Q	S	S	T	P	V	L	P	R	A	R	E	T	P	V	T		
1629			1638			1647			1656			1665			1674			
TCA	TTT	CAG	ACA	TCA	ACA	ATG	ACA	TCA	TTC	ATG	ACA	ATG	CTC	CAT	AGT	AGT	CAA	
S	F	Q	T	S	T	M	T	S	F	M	T	M	L	H	S	S	Q	
1683			1692			1701			1710			1719			1728			
ACT	GCA	GAC	CTT	AAG	AGC	CAG	AGC	ACC	CCA	CAC	CAA	GAG	AAA	GTC	ATT	ACA	GAA	
T	A	D	L	K	S	Q	S	T	P	H	Q	E	K	V	I	T	E	
1737			1746			1755			1764			1773			1782			
TCA	AAG	TCA	CCA	AGC	CTG	GTG	TCT	CTG	CCC	ACA	GAG	TCC	ACC	AAA	GCT	GTA	ACA	
S	K	S	P	S	L	V	S	L	P	T	E	S	T	K	A	V	T	
1791			1800			1809			1818			1827			1836			
ACA	AAC	TCT	CCT	TTG	CCT	CCA	TCC	TTA	ACA	GAG	TCC	TCC	ACA	GAG	CAA	ACC	CTT	
T	N	S	P	L	P	P	S	L	T	E	S	S	T	E	Q	T	L	
1845			1854			1863			1872			1881			1890			
CCA	GCC	ACA	AGC	ACC	AAC	TTA	GCA	CAA	ATG	TCT	CCA	ACT	TTC	ACA	ACT	ACC	ATT	
P	A	T	S	T	N	L	A	Q	M	S	P	T	F	T	T	T	I	

FIGURE 1E

CTG	AAG	ACC	TCT	CAG	CCT	CTT	ATG	ACC	ACT	CCT	GGC	ACC	CTG	TCA	AGC	ACA	GCA
L	K	T	S	Q	P	L	M	T	T	P	G	T	L	S	S	T	A
TCT	CTG	GTC	ACT	GGC	CCT	ATA	GCC	GTA	CAG	ACT	ACA	GCT	GGA	AAA	CAG	CTC	TCG
S	L	V	T	G	P	I	A	V	Q	T	T	A	G	K	Q	L	S
CTG	ACC	CAT	CCT	GAA	ATA	CTA	GTT	CCT	CAA	ATC	TCA	ACA	GAA	GTT	GGC	ATC	AGC
L	T	H	P	E	I	L	V	P	Q	I	S	T	E	G	G	I	S
ACA	GAA	AGG	AAC	CGA	GTG	ATT	GTG	GAT	GCT	ACC	ACT	GGA	TTG	ATC	CCT	TTG	ACC
T	E	R	N	R	V	I	V	D	A	T	T	G	L	I	P	L	T
AGT	GTA	CCC	ACA	TCA	GCA	AAA	GAA	ATG	ACC	ACA	AAG	CTT	GGC	GTT	ACA	GCA	GAG
S	V	P	T	S	A	K	E	M	T	T	K	L	G	V	T	A	E
TAC	AGC	CCA	GCT	TCA	CGT	TCC	CTC	GGA	ACA	TCT	CC <sup>T</sup> T	TCT	CCC	CAA	ACC	ACA	GTT
Y	S	P	A	S	R	S	L	G	T	S	P	S	P	Q	T	T	V

FIGURE 1F

He was a man of great energy and a strong leader, and his influence was felt throughout the community.

2223	TCC	ACG	GCT	GAA	GAC	TTG	GCT	CCC	AAA	TCT	GCC	ACC	TTT	GCT	GTT	CAG	AGC	2268
V	S	T	A	E	D	L	A	P	K	S	A	T	F	A	V	Q	S	-----
2277	AGC	ACA	CAG	TCA	CCA	ACA	CTG	TCC	TCT	TCA	GCC	TCA	GTC	AAC	AGC	TGT	GCT	2322
S	T	Q	S	P	T	T	L	S	S	S	A	S	V	N	S	C	A	-----
2331	GTG	AAC	CCT	TGT	CTT	CAC	AAT	GGC	GAA	TGC	GCA	GAC	AAC	ACC	AGC	CGT	GGC	2376
V	N	P	C	L	H	N	G	E	C	V	A	D	N	T	S	R	G	-----
2394	TAC	CAC	TGC	AGG	TCG	CCG	CCT	TCC	TGG	CAA	GGG	GAT	TGC	AGT	GTG	GAT	GTG	2430
Y	H	C	R	C	P	P	S	W	Q	G	D	D	C	S	V	D	V	-----
2448	AAT	GAG	TGC	CTG	TCG	AAC	CCC	TGC	CCA	TCC	ACA	GCC	ACG	TGC	AAC	AAT	ACT	2484
N	E	C	L	S	N	P	C	P	S	T	A	T	C	N	N	T	Q	-----
2493	GGA	TCC	TTT	ATC	TGC	AAA	TGC	CCG	GGG	TAC	CAG	TTC	GAA	AAA	GGG	ATA	TGC	2538
G	S	F	I	C	K	C	P	V	G	Y	Q	L	E	K	G	I	C	-----

## FIGURE 1G

“DIE 2410” Site 260

AAT	TTG	GTT	AGA	ACC	TTC	GTG	ACA	GAG	TTT	AAA	TTA	AAG	AGA	ACT	TTT	CTT	AAT
N	L	V	R	T	F	V	T	E	F	K	L	K	R	T	F	L	N
2601		2610		2619		2628		2637		2646							
ACA	ACT	GTG	GAA	AAA	CAT	TCA	GAC	CTA	CAA	GAA	GTT	GAA	AAT	GAG	ATC	ACC	AAA
T	T	V	E	K	H	S	D	L	Q	E	V	E	N	E	I	T	K
2655		2664		2673		2682		2691		2700							
ACG	TTA	AAT	ATG	TGT	TTT	TCA	GCG	TTA	CCT	AGT	TAC	ATC	CGA	TCT	ACA	GTT	CAC
T	L	N	M	C	F	S	A	L	P	S	Y	I	R	S	T	V	H
2709		2718		2727		2736		2745		2754							
GCC	TCT	AGG	GAG	TCC	AAC	GCG	GTC	GTC	ATC	TCA	CTG	CAA	ACA	ACC	TTT	TCC	CTG
A	S	R	E	S	N	A	V	V	I	S	L	Q	T	T	F	S	L
2763		2772		2781		2790		2799		2808							
GCC	TCC	AAT	GTG	ACG	CTA	TTT	GAC	CTG	GCT	GAT	AGG	ATG	CAG	AAA	TGT	GTC	AAC
A	S	N	V	T	L	F	D	L	A	D	R	M	Q	K	C	V	N
2817		2826		2835		2844		2853		2862							
TCC	TGC	AAG	TCC	TCT	GCT	GAG	GTC	TGC	CAG	CTC	TTG	GGA	TCT	CAG	AGG	CGG	ATC
S	C	K	S	S	A	E	V	C	Q	L	L	G	S	Q	R	R	I

FIGURE 1H

Figure 11: Synthesis of the 60

2871	TTT	AGA	GCG	GGC	AGC	TTC	TGG	TGC	AAG	CGG	AAG	AGT	CCC	GAA	TGT	GAC	AAA	GAC	ACC
	F	R	A	G	S	L	C	K	R	K	S	P	E	C	D	K	D	T	
2925	TCC	ATC	TGC	ACT	GAC	CTG	GAC	GGC	GTC	GCC	CTG	TGC	CAG	TGC	AAG	TCG	GGA	TAC	
	S	I	C	T	D	L	D	G	V	A	L	C	Q	C	K	S	G	Y	
2979	TTT	CAG	TTC	AAC	AAG	ATG	GAC	CAC	TCC	TGC	CGA	GCA	TGT	GAA	GAT	GGA	TAT	AGG	
	F	Q	F	N	K	M	D	H	S	C	R	A	C	E	D	G	Y	R	
3033	CTT	GAA	AAT	GAA	ACC	TGC	ATG	AGT	TGC	CCA	TTT	GGC	CTT	GGT	GCT	CTC	AAC	TGT	
	L	E	N	E	T	C	M	S	C	P	F	G	L	G	G	L	N	C	
3087	GGA	AAC	CCC	TAT	CAG	CTT	ATC	ACT	GTG	GTG	ATC	GCA	GCC	GCG	GGA	GGT	GGG	CTC	
	G	N	P	Y	Q	L	I	T	V	V	I	A	A	A	G	G	G	L	
3141	CTG	CTC	ATC	CTA	GGC	ATC	GCA	CTG	ATT	GTT	ACC	TGT	TGC	AGA	AAG	AAT	AAA	AAT	
	L	L	I	L	G	I	A	L	I	V	T	C	C	R	K	N	K	N	

FIGURE 11

Figure 1J: 9 nucleotide sequence

GAC	ATA	AGC	AAA	CTC	ATC	TTC	AAA	AGT	GGA	GAT	TTC	CAA	ATG	TCC	CCA	TAT	GCT
D	I	S	K	L	I	F	K	S	G	D	F	Q	M	S	P	Y	A
GAA	TAC	CCC	AAA	AAT	CCT	CGC	TCA	CAA	GAA	TGG	GGC	CGA	GAA	GCT	ATT	GAA	ATG
E	Y	P	K	N	P	R	S	Q	E	W	G	R	E	A	I	E	M
CAT	GAG	AAT	GGA	AGT	ACC	AAA	AAC	CTC	CTC	CAG	ATG	ACG	GAT	GTG	TAC	TAC	TCG
H	E	N	G	S	T	K	N	L	L	Q	M	T	D	V	Y	Y	S
CCT	ACA	AGT	GTA	AGG	AAT	CCA	GAA	CTT	GAA	CGA	AAC	GGA	CTC	TAC	CCG	GCC	TAC
P	T	S	V	R	N	P	E	L	E	R	N	G	L	Y	P	A	Y
ACT	GGA	CTG	CCA	GGA	TCA	CGG	CAT	TCT	TGC	ATT	TTC	CCC	GGA	CAG	TAT	AAC	CCG
T	G	L	P	G	S	R	H	S	C	I	F	P	G	Q	Y	N	P
TCT	TTC	ATC	AGT	GAT	GAA	AGC	AGA	AGA	GAC	TAC	TTT	TAA	GTC	CAG	GAG	AGA	
S	F	I	S	D	E	S	R	R	R	D	Y	F					
3195	3204						3213			3222			3231			3240	
3249	3258						3267			3276			3285			3294	
3303	3312						3321			3330			3339			3348	
3357	3366						3375			3384			3393			3402	
3411	3420						3429			3438			3447			3456	
3465	3474						3483			3492			3501			3510	

FIGURE 1J

GAG	GGA	CTC	ATT	GCT	CTG	AGC	CAG	TCA	CCT	GGG	ACC	TCT	GCT	CAG	AGG	ACC	GCA	3519	3528	3537	3546	3555	3564	
CCA	GGA	GGC	TGC	GCC	CAG	GAT	TTC	TCA	CAG	TGG	AGG	ACG	CTG	AGT	GGC	AAG	CAG	GAA	3573	3582	3591	3600	3609	3618
GAG	GGA	CAG	GCA	TGC	GGG	GCG	TGA	CCA	CAG	TGG	AGG	AGA	CAG	GTG	GAT	GTG	GAA	3627	3636	3645	3654	3663	3672	
CCA	CAG	GCT	GCT	CAT	TCA	GCA	CCT	TTC	TTC	TGA	ACG	TGA	ACG	TGA	ATG	TGG	GCC	3681	3690	3699	3708	3717	3726	
AGT	ATC	AAG	AGA	GTC	TCT	CTG	AGT	GAC	TGC	ACC	ATG	GCA	CTG	GCA	CTG	TGG	GCC	3735	3744	3753	3762	3771	3780	
CTA	TTA	GCC	AGG	GCA	GAC	CAC	TAG	ACT	TCA	GTG	CAG	GGA	CCT	GGT	TTT	CCC	GGG	CGA	3789	3798	3807	3816	3825	3834
GTT	TGC	ACT	TTA	GTA	AAT	TGG	GTG	GGA	GGT	TTT	CTT	TTG	GAT	CTG	TTT	TGA	GAC	3843	3852	3861	3870	3879	3888	
TGT	TCC	AGA	AAG	AAG	GCT	TCC	TTT	CCC	GAG	ACA	CTT	CCA	TAG	GCA	ATT	TGG	3897	3906	3915	3924	3933	3942		
TGA	TTC	ATT	TGC	AGC	AAA	ATA	CTG	GCT	TGT	TAA	TAA	TTT	TCC	TGC	CCA	GCG	CCT	3951	3960	3969	3978	3987	3996	
GCG	TGC	TAA	ACA	ACA	GAT	GAG	GAT	GAG	CGT	ACC	ACT	GAA	GTC	TGA	AGA	TGT	CGC	4005	4014	4023	4032	4041	4050	

FIGURE 1K

CAT	TGA	ACG	GAC	AGT	GTT	TTC	ATA	TGT	TTC	TAG	GTT	GTC	TTA	TGC	TAC	AGT	TTC
4059		4068		4077		4086		4095		4104							
4113		4122		4131		4140		4149		4158							
CAA	GCC	AGC	CCC	CAC	AGT	GAG	GAA	ATG	TGT	GAG	GCA	CCG	CAC	ACA	ACT	GCA	ATG
4167		4176		4185		4194		4203		4212							
TGT	TTT	TTA	AGT	CAA	GGT	GAC	ACA	TGT	ATT	TAA	GAT	TTT	TTA	AAA	TCT	CTT	
4221		4230		4239		4248		4257		4266							
TGC	AGT	TAA	ATC	TCA	CTT	TTT	CAA	ACA	AGC	CTG	GAT	CAG	GGC	AAA	ACA	ACT	TAT
4275		4284		4293		4302		4311		4320							
ATT	TGG	TTT	TAG	CTG	GAG	GCT	CAG	CAG	GCA	GAT	TGC	AGG	CAG	GGG	GGC	ACT	TTT
4329		4338		4347		4356		4365		4374							
CAT	CCA	TGA	GGG	CCC	AGC	CTG	GGG	CCT	GGG	ACT	CTG	ATC	ACC	ATT	GTG	GAG	GCC
4383		4392		4401		4410		4419		4428							
AGA	GGC	AGC	TGC	GTA	TGG	AGG	AGA	AAT	GTC	AAA	CTG	AAC	GCA	GGT	TTC	ACC	ACT
4437		4446		4455		4464		4473		4482							
CTA	GGA	AAG	CAG	CTT	GTT	GAG	CCC	CTG	CAG	CTG	GAT	GTC	GTT	AGA	GGG	ATG	GGC
4491		4500		4509		4518		4527		4536							
TGA	ATA	GGC	AGG	TTA	GAT	TTC	CTG	CAT	CAA	CAG	TGC	TTT	GGG	AAG	CTG	TGT	GGA
4545		4554		4563		4572		4581		4590							
TTC	CTG	AGG	AAG	AAC	AGG	GAG	CCG	AGA	TGG	AGC	CAC	ACA	TGA	GTT	TGC	TCA	CCG

FIGURE 1L

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GCT	ACT	GCA	GCA	CTT	TGT	ACC	CAG	AAT	CTC	ATG	TCC	ACA	AAC	CCC	ATG	TAA	ACT
TTC	AAC	CAC	TCA	AAG	CTG	TTT	ATT	CGG	CTG	AAG	AAA	TAA	CTT	TTT	TTT	CTC	ACC
CAG	TCA	TCT	GTA	CCT	CTT	CAT	ATG	GCT	GTG	TCG	CAC	CCT	CCA	GAA	ACG	TGG	TTA
TAC	TTC	CAG	TCA	GTG	TGG	GAG	AAC	TGA	AGA	CTT	CCG	GTT	GGT	CGA	GGA	ACT	GAG
GGT	TGA	CCT	TCG	GGA	AGG	AAG	TTC	CAC	TCA	TCT	TAT	TTA	TTA	TGC	CTG	TGA	TGT
GGG	TCC	TGC	CAG	GGA	GAC	ATC	CAG	TAC	TCG	GTG	TCT	TTA	ATT	GCC	ACC	TGG	GGA
ACT	GTG	TTT	ATT	GGC	CTT	CTT	TGG	GGC	ATC	CTG	GTT	TTG	GAT	GAA	GTG	AGG	GGA
ATA	CAG	AGG	TAA	AAG	AAT	TGT	CTC	CAC	CCT	GAA	GCG	GGG	AGT	CCC	GCT	TCA	CAT
TTC	TGG	AAA	TGG	TGC	AGC	CAC	TGG	GGA	CAG	TTG	TGC	CCC	GGG	CAT	GGT	TGT	TTC
TTC	AAG	GTC	CTC	TAA	ATA	TAA	TCC	CTA	TTC	TTA	CAT	AAT	CCT	TGG	CCC	TGA	TGG

## FIGURE 1M

5139	5148	5157	5166	5175	5184
TTT TAA GCA AGA ACT CCT GTG TCC CAT GGT CTC CAC CAC TCA CCA TCA CCC TGC					
5193	5202	5211	5220	5229	5238
TGT AGC AAG AGT CCT AGT CAG GGG AGG TGC ATT TTA GTA GTT AAA TTG CAC TTA					
5247	5256	5265	5274	5283	5292
TCC ATG AGA TAA ATA AAA GGA GAA CTG TTT TTA TCA GTG GAG GCT AAC CTA AAA					
5301	5310	5319	5328	5337	5346
TTT CAA AGT GTC GCC TTT TTG AAA TCT TGG GCC TCT CTC TCT GTA GAA CCA ATG					
5355	5364	5373	5382	5391	5400
GCC CTT TGT GGC TCA CGG CCT CGC ACC TAA CTG GAG AGT TCT GAG CTC CTG CAG					
5409	5418	5427	5436	5445	5454
CTC ACC TGA GCC CAC AGA CTA GGC TTC TTG GCT CCT TCC GCA GCA TGC CTG CTC					
5463	5472	5481	5490	5499	5508
ACC CCC AGA ACC CGC AGC TGT GGG AAG AGC CAT GTA GGG AGG CTA TTC CCA GGC					
5517	5526	5535	5544	5553	5562
ATA CAC TTC CAC TGC CTT CAG CTG ACG TCA CAG CTG ACA AAT CAT CTC CTC TAT					
5571	5580	5589	5598	5607	5616
CGG AGC CAG AAG ACT TCA GCT CCA AAT GAA GTG TTC TGT CCT GAA AAC ATT					
5625	5634	5643	5652	5661	5670
CTT GGG AAG AAT CCC AAC ATC GAG AAA ACG GTG TCC TGT GAG TTC CAA CAA TGC					

FIGURE 1N

FIGURE 10

Line 240: GAGGAGG

6219	GGG TGG CTG GCT GGC TCC CTG GCA TCA GTG GTG TGG TTT AAG CTC CAG AGG GTC	6228	6237	6246	6255	6264
6273	TTA TTG CCA TTG TCT TTT CCT CTG CCC CTT GAG CCA GCC TAA GGC CCT GGA GTC	6282	6291	6300	6309	6318
6327	TGT TTC TTT AGG CGG ATG AAC TGA CAT GCT CCT ACC ATG ACC AGG CTC TGG GCA	6336	6345	6354	6363	6372
6381	AGG CTC CTC ACA GTA TCC TTG AGA GGT GGG CAT GGA AGT GCC CAT TTC TCA GGT	6390	6399	6408	6417	6426
6435	ACA GAA ACC TTC AGG GAG GAT AAA TAG CTT GCC CTG TAG AAG CAG GAC TGA AAC	6444	6453	6462	6471	6480
6489	CCT TGT CCG CCT GAC TCC CCC AGC TAC TCT GCC CAC TGT AGC CCC CTG CCT TAC	6498	6507	6516	6525	6534
6543	TGT CCT GGC ACA CCC CTC ACC ATC CTG TAT ACC TTA AAT ATC AAA GAG GGC AAG	6552	6561	6570	6579	6588
6597	AGA GAA AGG GCT TTA AAG ATA AGT TAT TTT TTT AAG GAA CCT TAA TAT TAT TTT	6606	6615	6624	6633	6642
6651	TAA GAA GTA ACC AAA TTA GTG ACG TGA AAT GCA AAA AAA AAA AAT GCT	6660	6669	6678	6687	6696
6705	GAC TAC CCT TTT GAA AAT GTG CTT TCA GAT TGT TTT TTA TAT GAA ATT CTT AGA	6714	6723	6732	6741	6750

FIGURE 1P

CAC	TTG	TCA	TTA	AGA	AAA	TAG	TGG	CTG	GCT	TGT	GCT	CAG	CAA	GAA	GCA	CAC	TGG	
6759	6768	6777	6777	6786	6795	6795	6804											
CAC	GTG	GCT	TTG	GTA	TAG	GAA	GTG	GAA	GGC	AAG	GAC	CTG	GGT	TTC	TGA	CAA	GTG	
6813	6822	6831	6831	6840	6849	6849	6858											
CCG	TCA	GAC	TTA	CCC	TTC	CAT	CTG	GAG	AGC	TGG	TGG	CTT	TGG	TCC	CCT	GGG	TAG	
6867	6876	6885	6885	6894	6894	6894	6912											
GGC	CAT	GGG	TTC	CCC	ACT	ATT	ACT	GGG	AAG	CAG	CTA	TAG	GGT	G	3'			
6921	6930	6939	6939	6948	6948	6948												

FIGURE 1Q

1	M S Q T E T V S R S V A P M R G G E I T A H W L L T N S T T	182514CD1
1	- I T T E T T S Y T T S I T T E T P S H S T P	g2853301
1	P I S V Q P S S S S P T - - - T S T T S V Q S S S S	g915208
31	S A D V T - - - - -	- - - - -
30	S Y T T S I T T T E T P S H S T P S F T S S I T T E T P S F T S N T I T	182514CD1
27	S V P I P S T T S V Q S P S S G S A P T T S A T S V Q T S S	g2853301
36	G S S A S Y P E G V N A S V L T Q F S D S T V Q S G G S - -	g915208
60	H S T P S F T S I R T T E T T S Y S T P S F T S N T I T	182514CD1
57	S S S P P I S S T I S V Q T S S S V Q P S S S S S S A	g2853301
64	- H I A L G D R S Y S E S S T S S E S L N S S A P R G E	182514CD1
90	E T I S H S T P S Y I T S I T T E T P S S S T P S S S S S S A	g2853301
74	- - - - - - - - S S V P T T S T T S V Q P S S S S S S A	g915208
93	R S I A G I S Y G Q V R G - - T A I E Q R T S D H T D H T	182514CD1
120	I T T I E T I S H S T P G F T S S I T T E T T S H S T P S	g2853301
93	P T T R A T S V Q S S S S S A P I S S T T S V Q - - - P S	g915208
121	Y L S S T F T K G E R A L L S - - - - -	182514CD1
150	F T S S I T T E T T S H D T P S F T S I T T S E T P S S D	g2853301
120	S S G S V P T T S A T S V Q S S S S A P T T S A T S V Q	g915208

FIGURE 2A

FIGURE 2B: Shaded Boxes

145	I V E S S T S Y I K I S N S S H S E Y S S F S H A Q T E R S	182514CD1
180	S T P S S T S L I T T K T T S H S T P S F T S I T T E T E	g2853301
150	P S S S S S S -	g915208
175	N I S S Y D G E Y A Q P S T E S P V L H T S N L P S Y T P T	182514CD1
210	T T S H S A R S F T S S I T T E T - T S H N T R S F T S S	g2853301
167	S S S S A P -	g915208
205	I N M P N T S V V L D T D A E F V S D S S S S S S S S S S	182514CD1
239	I T T E T N S - - H S T T S F T S S I T T T E T T S H S T	g2853301
174	- -	g915208
235	S S S G P P L P -	182514CD1
267	P S F S S I T T E T P L H S T P G L P S W V T T K T T F	g2853301
188	P P I S S T V S V Q T S S V S S V P - - - - - - - - - - -	g915208
254	S S I L P S T R A S V H L L K S T S D A S T P W S S S P S P	182514CD1
297	S H I T P G I T S I T T E T T S H S T P G F T S S I T T	g2853301
210	T S V Q P S S S V P T T S A T S - - - - - - - - - - - -	g915208
284	L P V S L T T S T S A P L S V S Q T T L P Q S S S T P V L P	182514CD1
327	T E T S E S T P S T S I Y S T V S T S T A I T S H	g2853301
234	S S T P I P S T T S V Q P S S S S A P T T S A T S V Q P S	g915208

FIGURE 2B

314	R A R E T P V T S F Q T S T M T S F M T M L H S S Q T A D L	182514CD1
357	F T T S E T A V T P T P V T P S S L S T D I P T T S L R T L	g2853301
264	S S S S T P I P S T V Q P S S - S S S A P T T S A T S V	g915208
344	K S Q S T P H Q E K V I T E S K S P S L - - V S L P T E S	182514CD1
387	T P S S V G T S T S L T T T D F P S I P T D I S T L P T R	g2853301
293	Q P S S S S P S S S S - - - - - P P I S S T I S V Q P S S	g915208
371	T K A V T T N S P L P P S L T E S S T E Q T L P A T S T N L	182514CD1
417	T H I I S S S P S I Q S T E T S L V G T I S P T M S T V R	g2853301
313	S - - S S S P T T S T T S V Q P S S G S A P T T S A T S	g915208
401	A Q M S P T - - - F T T T S Q P L M T T P G	182514CD1
447	M T L R I T E N T P I S S F S T I P E T P T Q T P P	g2853301
340	V Q P S S S S P P I S S - - T I S V Q P S S S P T	g915208
424	T L S S T A S L V T G P I A V Q T T - A G K Q L S L T H P E	182514CD1
477	V L T A T G T Q T S P A P T T V T F G S T D S S T L H	g2853301
367	- - T S T T S V Q P S S G S A - - - - - - - - - -	g915208
453	I L V P Q I S T E G G I S T E R N R V I V D A T G L I P L	182514CD1
507	T L T P S T A L S T I V S T S Q V P I P S T H S S T L Q T T	g2853301
381	- - P T T S A T S V Q P S S S V P T S A T S V R S S	g915208

FIGURE 2C

FIGURE 2D

647	T V E K H S D	Q E V E N E I T K T L N M C F S	A L P S Y I	182514CD1
712	S I S I Q T T	Q T T Y M D T S S M M P E S	S I S P N A S	g2853301
496	- - - - -	- - - - -	S T T S V Q P S S	g915208
677	R S T V H A S R E S	N A V V I S - - L Q T T F S L A S N V T	182514CD1	
742	S S T G T G T V P T	N T V F T S T R L P T S E T W L S N S S	182514CD1	
506	G S A P T	- - - - -	- - - - -	g915208
705	L F D L A D R M Q K C V N - S C K S S A E V C Q L L G S Q R	182514CD1		
772	V I P L P L P G V S T I P L T M K P S S L P T I L R T S S	182514CD1		
511	- - - - -	- - - - -	- - - - -	g915208
734	R I F R A G S L C K R S P E C D K D T S I C T D L D G V A	182514CD1		
802	K S T H P S P P T T R T S E T P V A T T Q T P T L T S R R	182514CD1		
514	T S V Q P S S - - -	S S P P I S S	182514CD1	
764	L C Q C K S G Y F Q F N K M D H S C R A C E D G Y R L E N E	182514CD1		
832	T T R I T S Q M T T Q S T L T T A G T C D N G G T W E Q G	182514CD1		
528	- - - - -	- - - - -	g915208	
794	T C M S C P F G L G G L N C G N P Y Q L I T V V I A A A G -	182514CD1		
862	Q C - A C L P G F S G D R C - - - Q I Q T R C Q N G G Q W	182514CD1		
528	- - - - -	- - - - -	g915208	

FIGURE 2E

823	G	<b>GL</b>	L	L	G	I	A	L	I	V	T	C	R	K	N	D	I	S	K	L	I	F	K	S	182514CD1					
887	D	<b>GL</b>	K	C	P	S	T	F	Y	G	S	S	C	-	-	-	E	F	A	V	Q	V	D	L	D	A	g2853301			
528																										g915208				
853	G	<b>DF</b>	-	-	Q	M	S	P	Y	A	E	Y	P	K	N	<b>PR</b>	S	Q	<b>EW</b>	G	R	E	A	I	E	M	H	182514CD1		
914	E	<b>DF</b>	C	R	H	A	G	L	H	L	Q	G	C	G	D	P	V	P	E	W	Q	H	-	-	-	-	-	g2853301		
528																										g915208				
881	E	N	G	S	T	K	N	L	L	Q	M	T	D	V	Y	Y	S	P	T	S	V	R	N	P	E	L	<b>R</b>	N	<b>G</b>	182514CD1
938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>R</b>	G	G	g2853301	
528																										g915208				
911	<b>L</b>	Y	P	A	Y	T	G	L	P	G	S	R	H	S	C	I	F	<b>PG</b>	Q	Y	N	P	S	F	I	S	D	E	S	182514CD1
941	<b>L</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>PG</b>	P	A	G	D	A	L	Q	P	P	A	G	g2853301
528																										g915208				
941	R	<b>RR</b>	R	D	Y	F																						182514CD1		
955	E	<b>RR</b>	-	-	V																							g2853301		
528																										g915208				

FIGURE 2F